

## **Spectroscopic properties of UV active media $\text{Ce}^{3+}:\text{LiCa}_{1-x}\text{Sr}_x\text{AlF}_6$**

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### **Abstract**

© 2016 IEEE. Optical absorption spectroscopy studies have shown that mixed crystals  $\text{Ce}^{3+}:\text{LiCa}_{0.2}\text{Sr}_{0.8}\text{AlF}_6$  grown by Bridgeman technique exhibit more than 3 times higher absorption coefficient compared to  $\text{Ce}^{3+}:\text{LiCaAlF}_6$  sample. An important result is based on the fact that this enhancement was achieved for two types of  $\text{Ce}^{3+}$  centers in a multisite  $\text{Ce}:\text{LiSr}_{0.8}\text{Ca}_{0.2}\text{AlF}_6$  system.

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### **Keywords**

crystal growth, rare earth materials, ultraviolet sources